



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,401	09/16/2003	Akimasa Niwa	11-194	9678

23400 7590 01/31/2007
POSZ LAW GROUP, PLC
12040 SOUTH LAKES DRIVE
SUITE 101
RESTON, VA 20191

EXAMINER

MARIAM, DANIEL G

ART UNIT	PAPER NUMBER
----------	--------------

2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/662,401

Applicant(s)

NIWA, AKIMASA

Examiner

DANIEL G. MARIAM

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/16/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 13 is objected to because of the following informalities: the limitation "by calculate" recited in line 3 appears to be grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 recites the limitation "the same monitoring range" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Since claims 2-21 directly or indirectly depend on claim 1, they are also rejected under 35 USC 112, second paragraph, for the same reason set forth above for claim 1.

4. Claim 12 recites the limitation "the highest luminance value" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Since claims 13-19 directly or indirectly depend on claim 12, they are also rejected under 35 USC 112, second paragraph, for the same reason set forth above for claim 12.

5. Claim 13 recites the limitation "the absolute value" in line 3. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

Art Unit: 2624

the invention. In claim 20 the limitation "take a photograph continuously" recited in line 3 is unclear because the claim is silent as to what is being photographed.

Since claim 21 depend on claim 20, it is also rejected under 35 USC 112, second paragraph, for the same reason set forth above for claim 20.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawasaki, et al (5,838,365).

With regard to claim 1, Sawasaki, et al discloses a moving body detecting apparatus (See for example, Fig. 54) comprising: image acquiring means, i.e., camera, for acquiring static images, i.e., background images, continuing in time sequence in the same monitoring range, i.e., a room monitored from one point to another (See for example, Figs. 54 & 55); and decision processing means, i.e., motion detector, for receiving a plurality of static images continuing in time sequence from said image acquiring means to make a comparison, i.e., correlating or calculating a difference image data requires comparing two or more images, among said static images, each of the video images of Fig. 55, that are compared to determine difference does contain background images, for making a decision as to whether or not a body moves from an area allowing the existence of a body, i.e., existence of intruding object/person when differences between images fall above or equal to a predetermined value, (which will hereinafter be referred

Art Unit: 2624

to as an "allowable area"), set in advance in said monitoring range, to an area inhibiting the existence of a body, i.e., absence of intruder when the difference between image data is under a predetermined value, (which will hereinafter be referred to as an "unallowable area"), set in advance in said monitoring range (col. 29, line 46 through col. 30, line 60; and Figs. 54-56).

Although Sawasaki, et al does not expressly use the language setting in advance an area for the purpose of detecting the presence or absence of a moving body, one of ordinary skill in the art would have found it obvious the local region referred in describing Fig. 55 of Sawasaki, et al, could not be anything other than a predefined area composed for the purpose of detecting the presence or absence of an intruder, i.e., moving body, within the specified local region or room.

With regard to claim 2, the apparatus according to claim 1, wherein each of said allowable area and said unallowable area are set in the form of a point set, i.e., the area defined by the boundaries (See for example, Fig. 55).

With regard to claim 3, the apparatus according to claim 1, wherein each of said allowable area and said unallowable area are prescribed by a boundary line of its outer circumference (See Figs. 55 and 60).

With regard to claim 9, the apparatus according to claim 1, further comprising notifying, i.e., alarm, means for notifying the existence of a moving body to a user so that said decision processing means issues a command to said notifying means to notify the existence of a moving body to said user when making a decision that said moving body exists in said monitoring range (col. 30, lines 6-19).

With regard to claim 10, the apparatus according to claim 1, further comprising warning, i.e., alarm, means for warning a moving body so that said decision processing means issues a command to said warning means to warn a moving body when making a decision that said moving body continuously exists in said monitoring range for a predetermined period of time, in response to a the detection signal, i.e., presence of intruder, the alarm unit generates an alarm from the motion detector (See col. 30, lines 6-19) .

With regard to claim 11, the apparatus according to claim 1, wherein said moving body detecting apparatus is used as an antitheft apparatus (which reads on the detection of an intruder, and when an intruder is detected an alarm is generated to alarm some one that an intruder is present in the room. Given the broadest reasonable interpretation it does read on antitheft apparatus (See col. 30, lines 6-19)).

9. Claims 4-5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawasaki, et al as applied to claims 1-3 and 9-11 above, and further in view of Ferre, et al (5,063,524).

With regard to claim 4, Sawasaki, et al (hereinafter "Sawasaki") discloses all of the claimed subject matter as already discussed above in paragraph 8, and incorporated herein by reference. While in Sawasaki the difference calculated between the images shown in Fig. 55 is generic, Sawasaki does not expressly call for calculating an absolute difference in luminance value between each of the plurality of static images. However, ferre, et al (col. 10, lines 21-35) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Ferre, et al into the system of Sawasaki, if for no other reason than to compute absolute values of the differences in luminance between the images, and

Art Unit: 2624

to do so would at least enhance the performance of motion detection in a given zone or region, and to minimize the processing time as well.

With regard to claim 5, the apparatus according to claim 4, further comprising preliminary decision processing means for making a comparison with respect to said allowable area between said background image stored in advance and said static image from said image acquiring means to make a preliminary decision as to whether or not a difference therebetween exceeds a predetermined value so that said decision processing means carries out the decision processing only when a preliminary decision result in said preliminary decision processing means shows a difference exceeding said predetermined value (See for example, col. 30, lines 6-19).

With regard to claim 8, the apparatus according to claim 1, wherein said decision processing means includes motion vector calculating means for calculating, on the basis of information on a position of a pixel set, a motion vector indicative of a motion of said pixel set, and said decision processing means implements the decision processing on the basis of the calculated motion vector (See col. 21, lines 13-27 of Sawasaki; and col. 10, lines 36-68 of Ferre, et al)).

10. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawasaki, et al as applied to claims 1-3 and 9-11 above, and further in view of Kamei (6,819,778).

With regard to claim 6, Sawasaki, et al (hereinafter "Sawasaki") discloses all of the claimed subject matter as already discussed above in paragraph 8, and incorporated herein by reference. Sawasaki does not expressly call for wherein said decision processing means converts

Art Unit: 2624

said difference images into binary image data and labels them so that, on the basis of information on an area and position of a pixel set obtained through the conversion and labeling, a decision is made as to whether a moving body exists or not. However, Kamei (See for example, col.4, line 60 – col. 5, line 11) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Kamei into the system of Sawasaki so as to determine the presence/absence of a moving object by converting the difference images into binary images and labeling the converted images.

With regard to claim 7, the apparatus according to claim 6, wherein, simultaneously with the labeling, said decision processing means calculates the area of said pixel set through the use of a counter (which broadly reads on col. 5, lines 3-16 of Kamei).

Conclusion


11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 5243418, 5335180, 5606376, 6205242, 6307951, 6931146, and 7133537.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DANIEL G MARIAM
Primary Examiner
Art Unit 2624

January 24, 2007